Appl. No. 10/795,930
Reply to Office Action dated May 8, 2006

Docket No. ALLEG-041PUS

Amendments to the Specification:

Please replace the paragraph beginning at page 13, line 12 with the following amended paragraph.

Referring now to Figure 7, the VTR and VTH signals of Figure 6 are shown for one-half cycle in relation to an illustrative DIFF signal. Also shown is the POSCOMP signal. When the POSCOMP signal is in a first logic state (e.g., high between times t_1 and t_4), the VTR tracking signal is above the VTH threshold signal. When the POSCOMP signal is in a second logic state (e.g., low between a time t_4 and another time (not shown), the VTR tracking signal is below the VTH threshold signal. Stated differently, the VTH threshold signal and the VTR tracking signal are interchanged when the POSCOMP signal changes state. With this arrangement, the VTR tracking signal is forced toward, and therefore closely follows the DIFF signal near the times corresponding to transitions of the ~~POSCMP~~ POSCOMP signal, e.g., at the times t_1 and t_4. However, for rapidly changing magnetic fields, at times away from the times t_1 and t_4, the VTR signal cannot keep up with the rapidly changing DIFF signal, and the VTR signal moves progressively away from the DIFF signal which it attempts to track.